

STANFORD UNIVERSITY MEDICAL CENTER
STANFORD, CALIFORNIA 94305

DEPARTMENT OF BIOCHEMISTRY

PAUL BERG
Willson Professor of Biochemistry
August 20, 1979

Dr. Donald Fredrickson, Director
National Institutes of Health
Building 1, Room 124
Bethesda, Maryland 20014

Dear Don,

One of the principal recommendations in The Asilomar Conference Report on Recombinant DNA was that the guidelines for containment and administrative procedures for recombinant DNA techniques be reviewed continuously. We expected that in time and with growing experience our views about the nature of the risks would change and this would be translated into corresponding changes in the detailed recommendations in the NIH Guidelines. It is to your credit that you prevailed in incorporating a procedure for orderly changes and this procedure, though time consuming, is working.

I do want to take this opportunity to comment on the proposed exemption for E. coli K-12 Host-Vector Systems from the Guidelines. When the group of which I was a member expressed our concern about potential risks associated with recombinant DNA research, we had in mind the possibility that such experimentation might employ a wide variety of E. coli strains and transmissible vectors as host-vector systems. We imagined that some of these would be able to establish themselves in nature or in the intestinal tracts of man and animals. Had we known then that E. coli strain K-12 and non-transmissible plasmids or phages would be widely adopted as the preferred host-vector systems, and that this system would be as secure as all the risk-assessment experiments have shown, I doubt that we would have raised the issue in the manner we did. I am persuaded by the evidence I have seen that molecular cloning of any DNA segments in E. coli K-12 using the array of present day cloning vectors is no longer of any real concern, certainly not enough to warrant the continued inclusion of such experiments within the purview of The Guidelines and the IBC's. Perhaps it would still be useful to maintain a log of recombinant DNA experiments in this category so that these experiments can contribute to the ongoing assessment of the safety of such research activities.

With best personal regards,
Sincerely,



Paul Berg

PB/ras